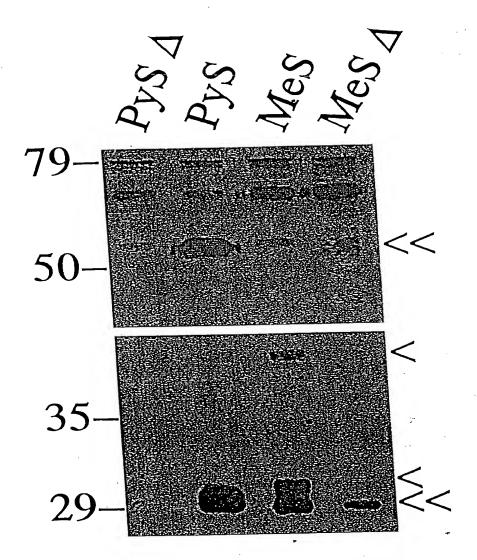
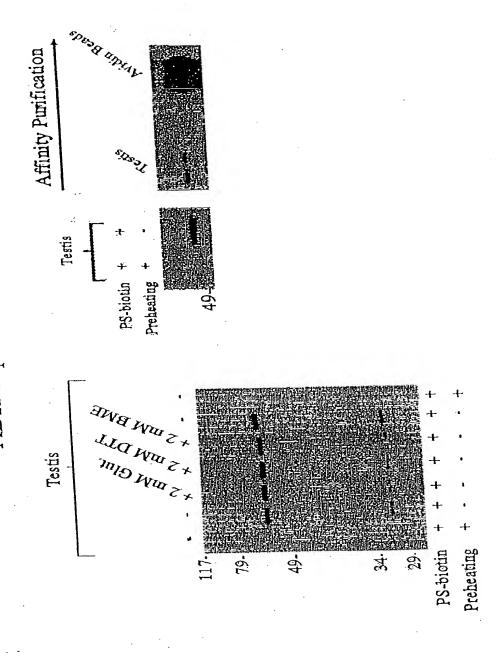


FIGURE 2



Non-Directed Tagged Library of Sulfonates Identifies Probe for ADH Superfamily of Enzymes

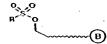


EICORE 3

There are over 300 commercially available sullonyl chlorides with varying R groups.

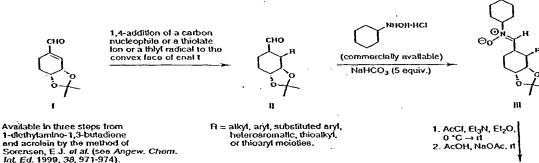
= Inker of varied constitution and length

- Sulfonate ester formation
  Oxidative cleavage of alkene
- Coupling of resultant carboxylic acid with various biotinylated conjugatés



- R = pyrkdyl, substituted pyrkdyl, aryl, substituted aryl, heteroaromatic, or verlous alkyl moleties
- = linker of varied constitution and length
- (B) = biotin

icheme 1. A pathway for syntheses of various biotinylated suffonate esters for use in activity-based proteomics studies.



Available in three steps from 1-dlethylamino-1,3-butadione and acrolein by the method of Sorensen, E. J. et al. (see Angew. Chem. Int. Ed. 1999, 38, 971-974).

Acylation of hydroxyl group of V with various biotinylated conjugates

1. LIAIH<sub>4</sub>, El<sub>2</sub>O 2. 2 N HCl 3. MsCl, Et<sub>3</sub>N; then 6 N NaOH, MeOH 4. t-BuONa, MeI, THF

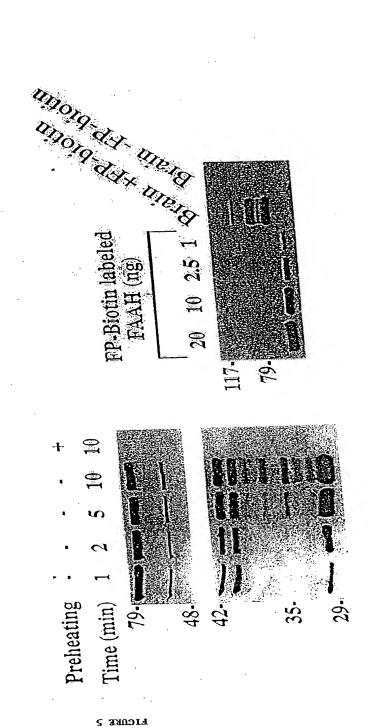
= linker of varied constitution and length

B = blotin

R = alkyl, aryl, substituted aryl, heteroaromatic, thloalkyl, or thioaryl moletles.

)

FP-Biotin: a kinetic reporter of SH Activity



Utility of Multiplexed probes in identifying Serine Hydrolases

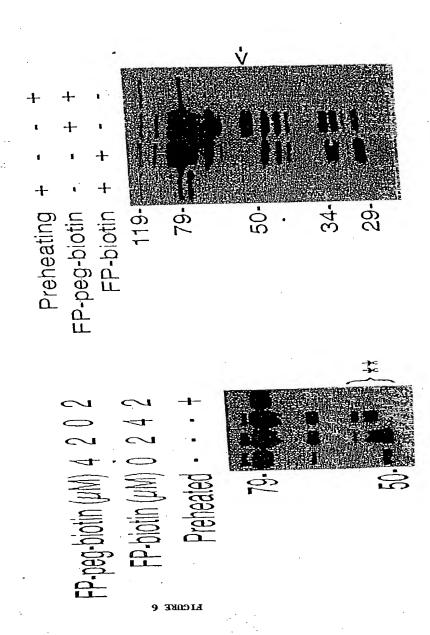
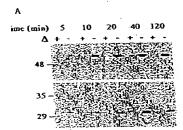
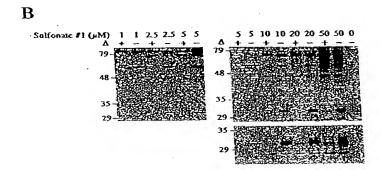
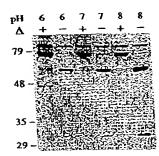


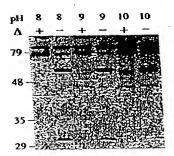
FIGURE 7

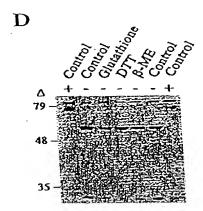




 $\mathbf{C}$ 

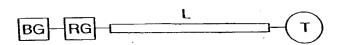






X (EIO) 
$$_3$$
 P.  $_\Delta$  Q  $_{\stackrel{\circ}{0}}$   $_{\stackrel{\circ}$ 

A.



В.

$$R = \frac{1}{N} \frac{H}{N} \frac{H}{N} \frac{S}{N} \frac{H}{N} \frac{S}{N} \frac{S}{N}$$

6 S-O-R

2

8 N<sub>2</sub>O-\(\bigcirc\_{\text{"}}\)-\(\bigcirc\_{\text{"}}\

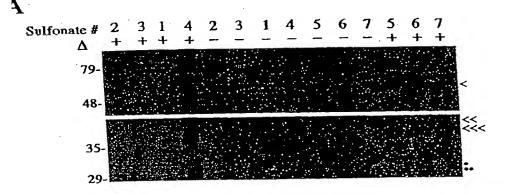
4 MeO - S-O-R

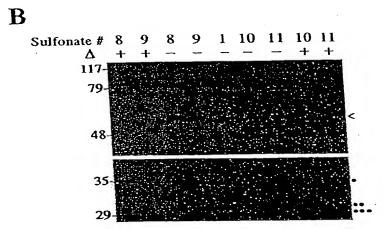
9 0=\$=0 0-p

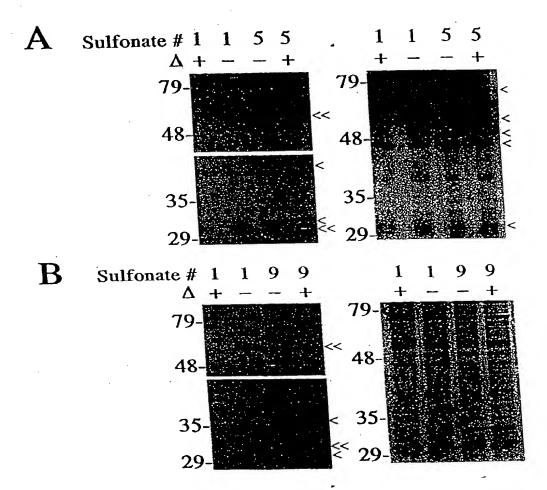
5 — s-o-r

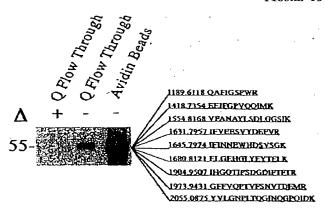
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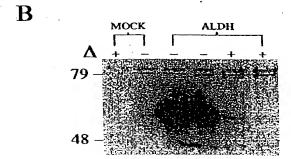
O' O-R

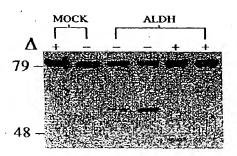


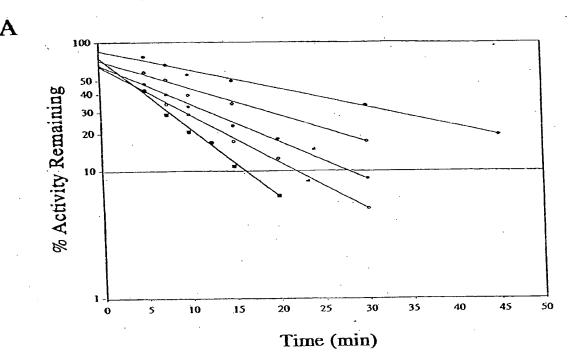


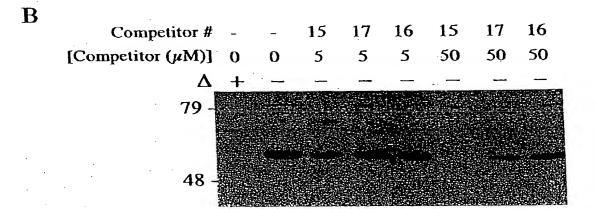


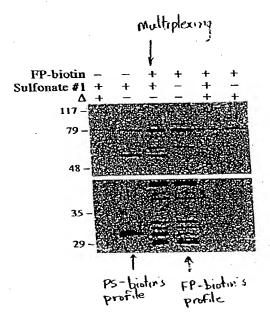


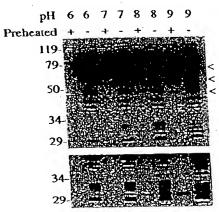




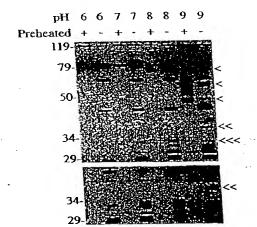








FP-peg-biotin



FP-biotin

